



December 2, 2016

## Public Health Preparedness and Situational Awareness Report: #2016:47 Reporting for the week ending 11/26/16 (MMWR Week #47)

### CURRENT HOMELAND SECURITY THREAT LEVELS

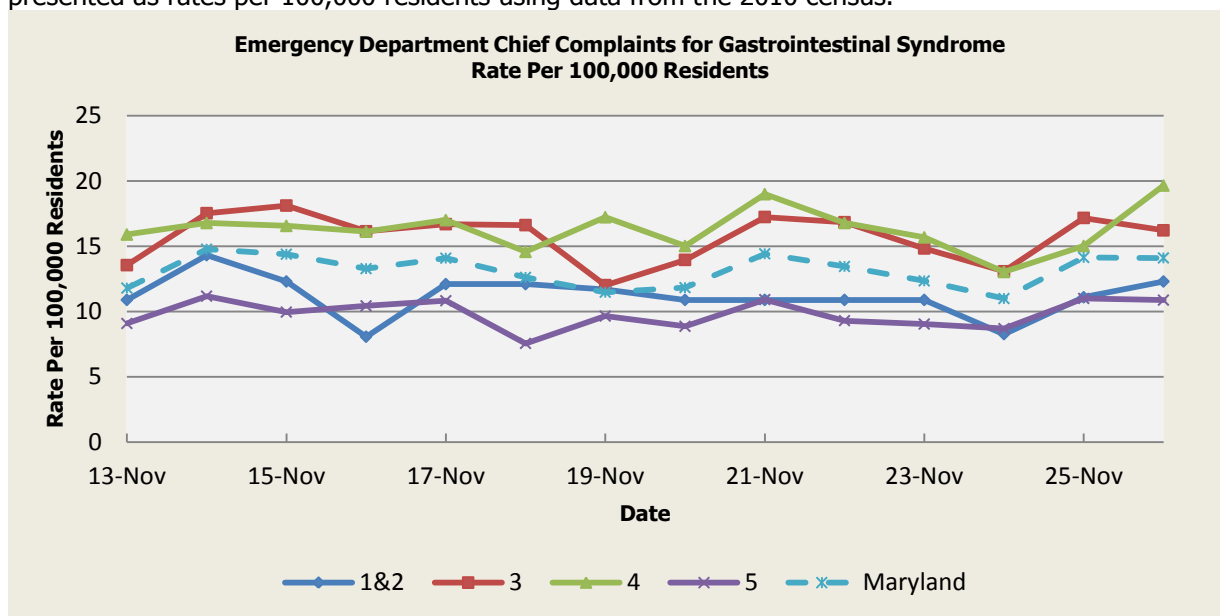
National: No Active Alerts

Maryland: Level Four (MEMA status)

### SYNDROMIC SURVEILLANCE REPORTS

#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

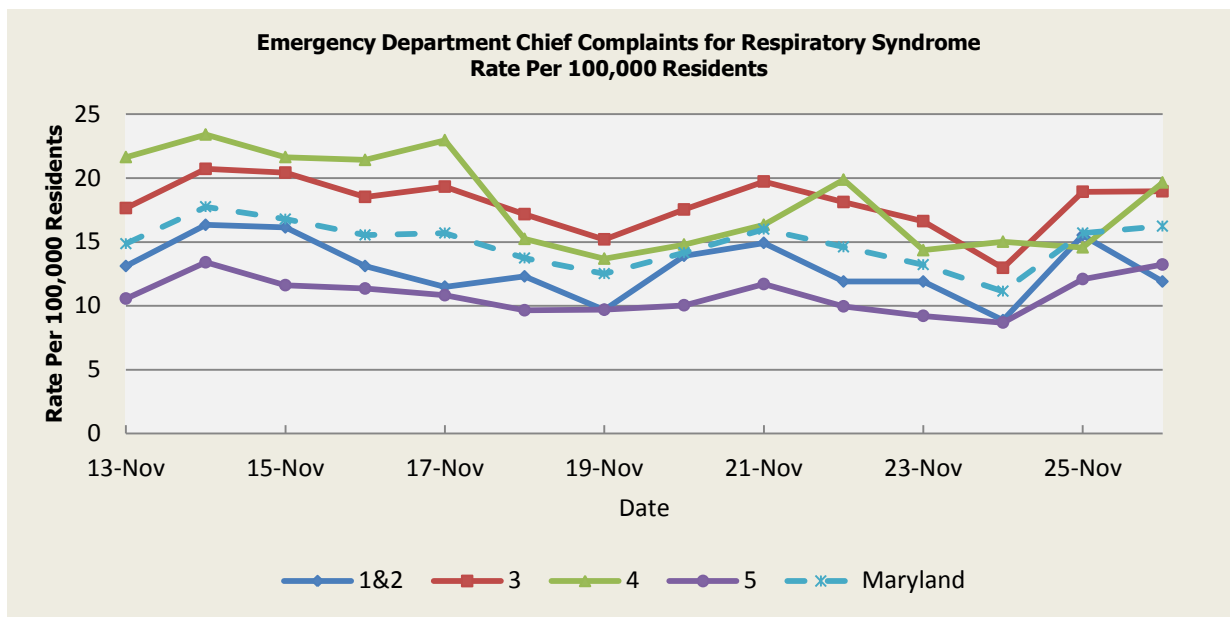
Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There were two (2) gastroenteritis / foodborne outbreaks reported this week: 1 (1) outbreak of gastroenteritis in a Nursing Home (Region 3); one (1) outbreak of gastroenteritis / foodborne associated with a Restaurant (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.94	14.88	15.42	10.31	13.01
Median Rate*	12.70	14.47	14.80	10.17	12.75

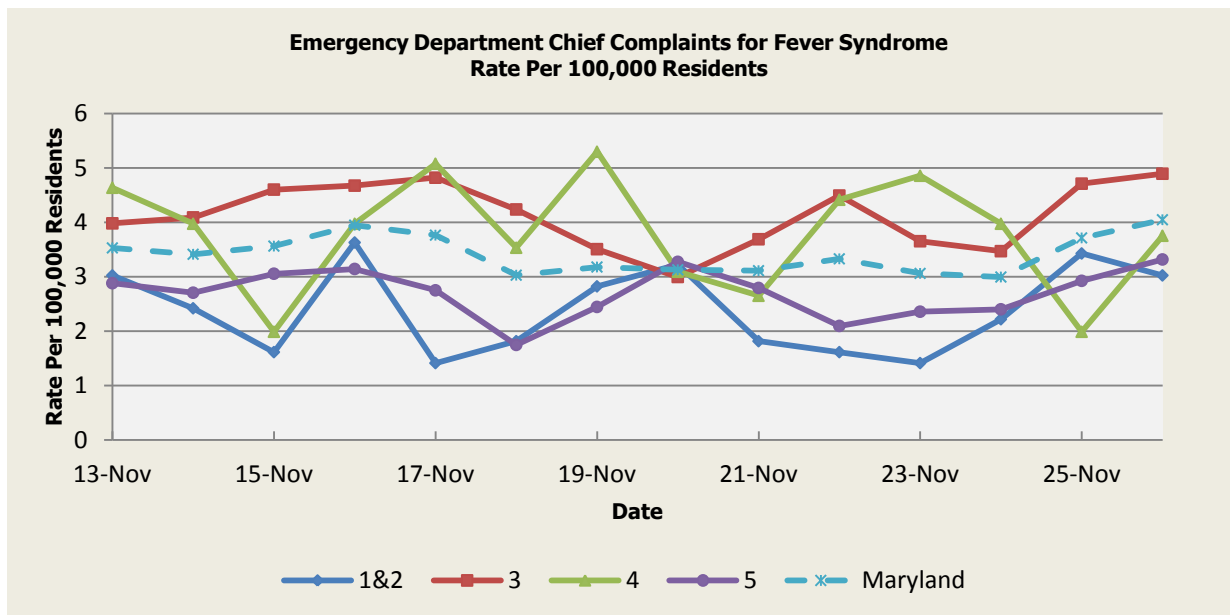
\* Per 100,000 Residents



There was one (1) respiratory illness outbreak reported this week: 1 outbreak of Pertussis associated with a School (Region 5).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.12	14.04	9.94	12.34
Median Rate*	11.70	13.37	13.69	9.52	11.79

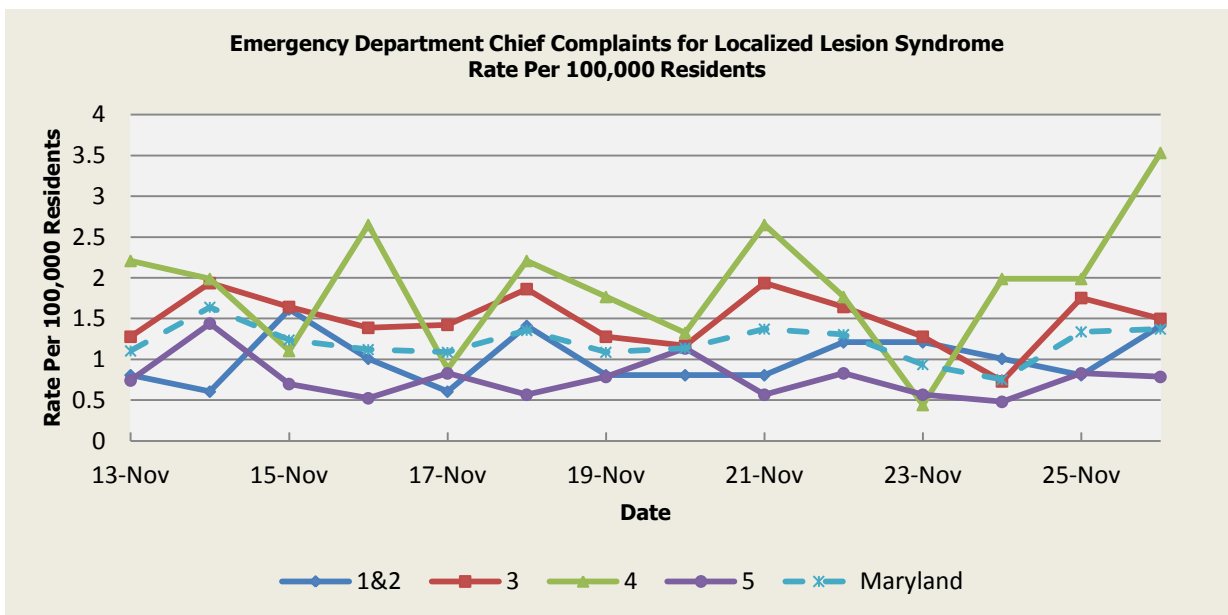
\* Per 100,000 Residents



There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.07	3.80	3.93	3.09	3.48
Median Rate*	3.02	3.62	3.75	2.97	3.35

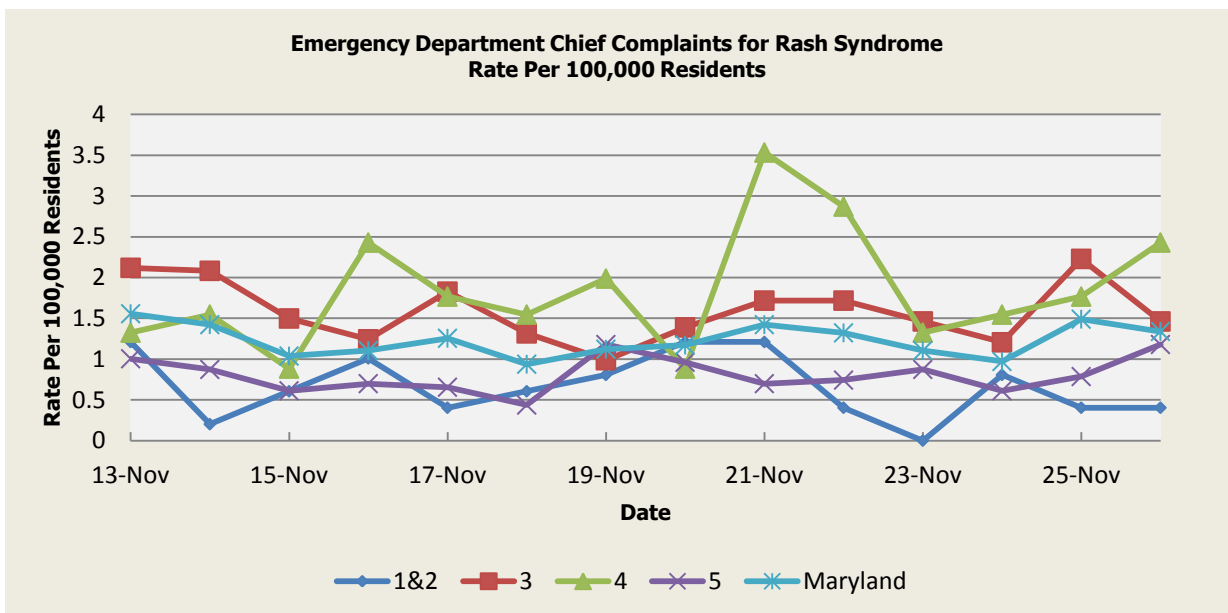
Per 100,000 Residents



There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.07	1.91	2.03	0.98	1.49
Median Rate*	1.01	1.86	1.99	0.92	1.44

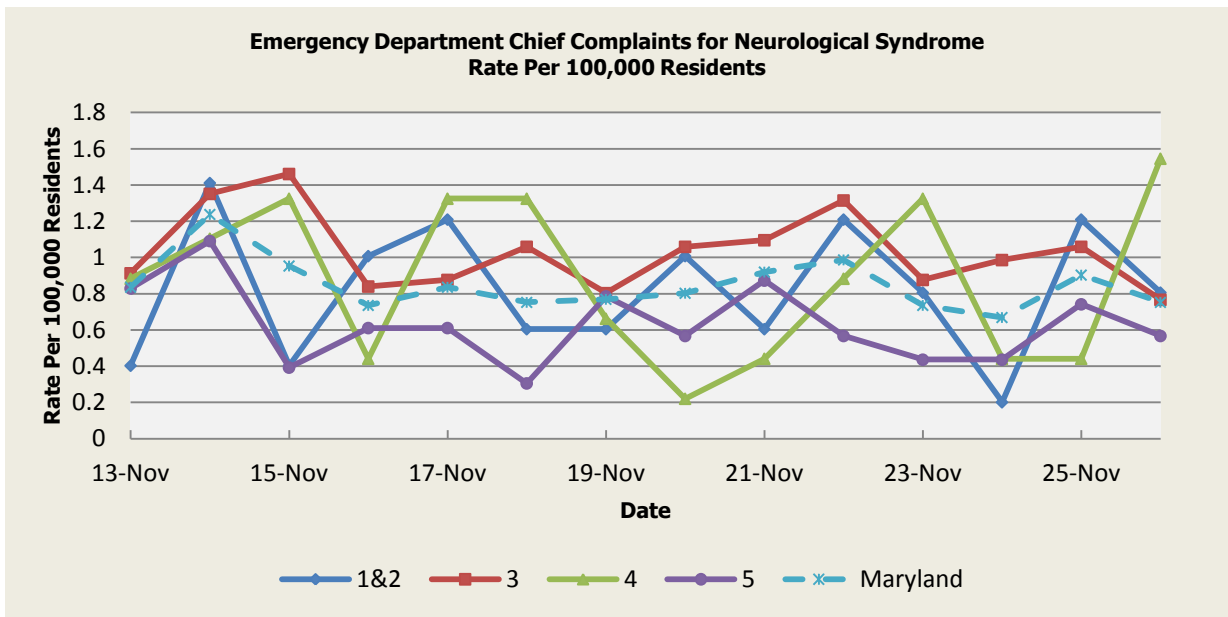
\* Per 100,000 Residents



There were no rash illness outbreaks reported this week.

Rash Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.75	1.75	1.04	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.39

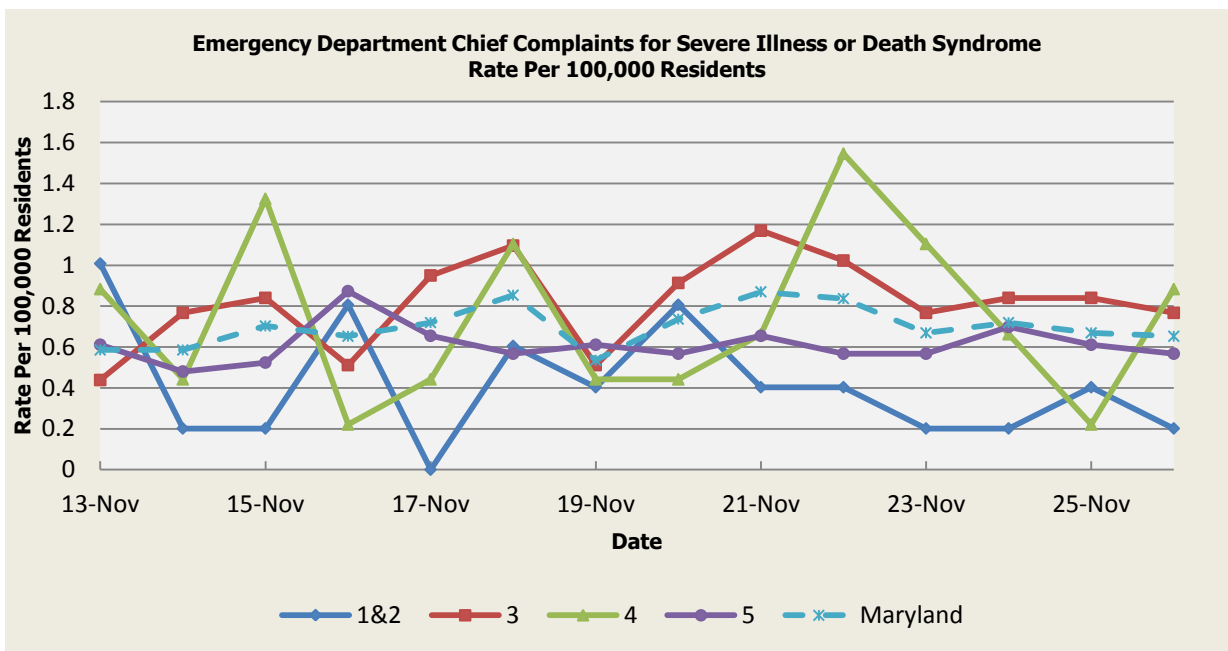
\* Per 100,000 Residents



There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.73	0.65	0.48	0.62
Median Rate*	0.60	0.66	0.66	0.44	0.57

\* Per 100,000 Residents

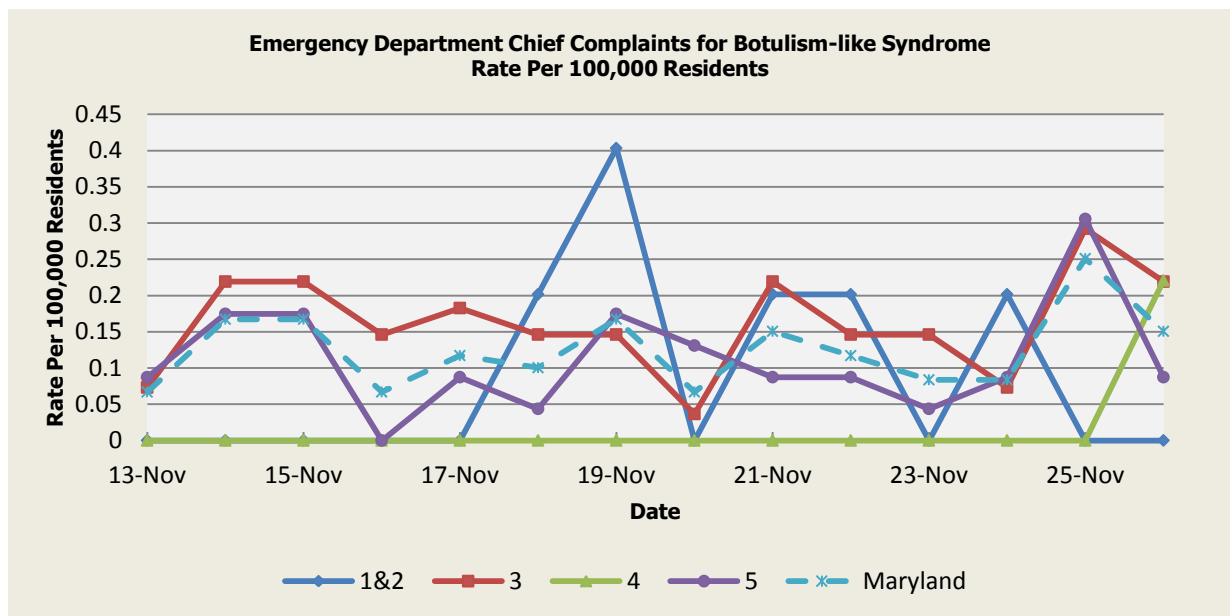


There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.70	0.95	0.84	0.44	0.73
Median Rate*	0.60	0.91	0.88	0.44	0.72

\* Per 100,000 Residents

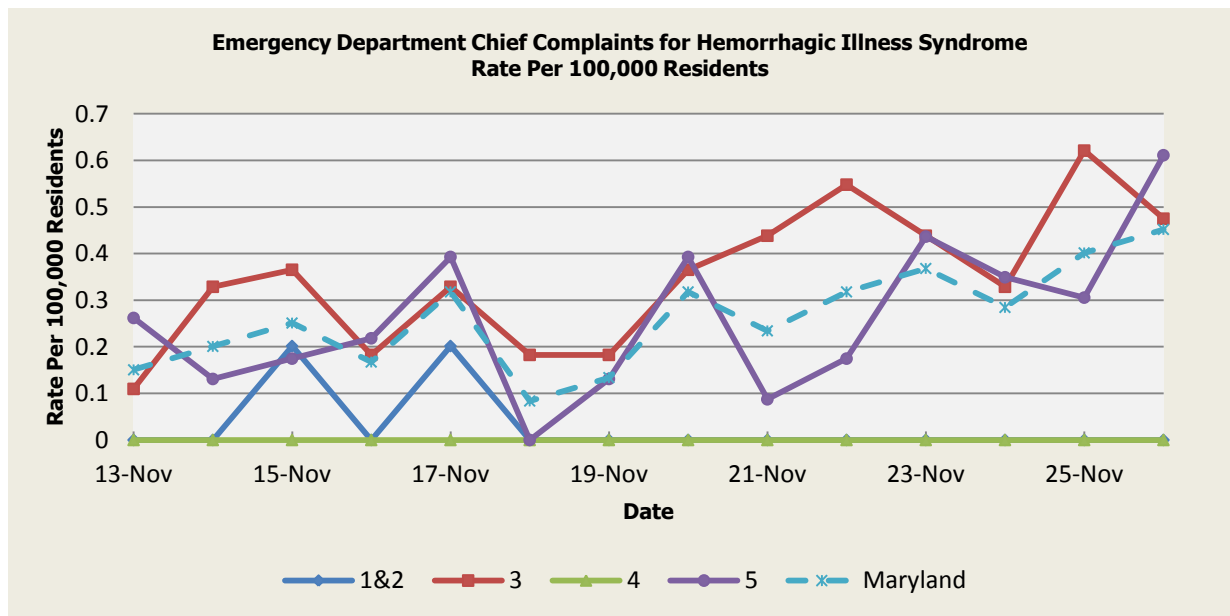
## SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 11/14 (Regions 3, 5), 11/15 (Regions 3,5), 11/17 (Regions 3), 11/18 (Region 1&2), 11/19 (Regions 1&2,5), 11/20 (Regions 5), 11/21 (Regions 1&2,3), 11/22 (Region 1&2), 11/24 (Regions 1&2), 11/25 (Regions 3,5), and 11/26 (Regions 3,4). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	0.04	0.05	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.05

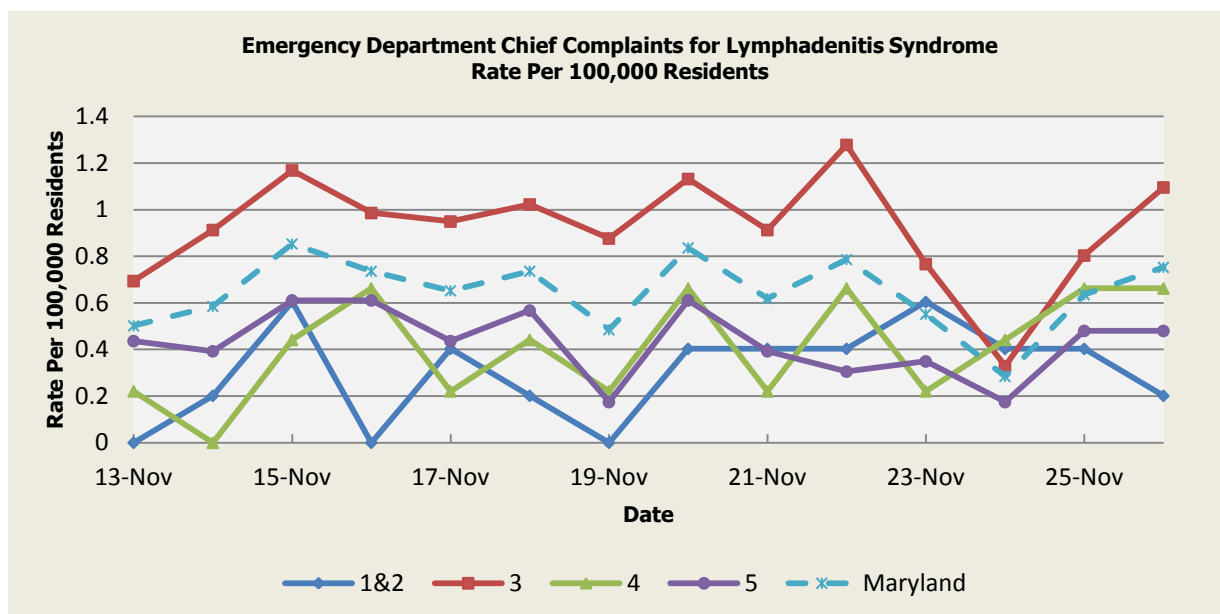
\* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 11/13 (Region 5), 11/14 (Region 3), 11/15 (Regions 1&2,3,5), 11/16 (Regions 3,5), 11/17 (Regions 1&2,3,5), 11/18 (Region 3), 11/19 (Region 3), 11/20 (Region 3,5), 11/21 (Region 3), 11/22 (Regions 3,5), 11/23 (Regions 3,5), 11/24 (Regions 3,5), 11/25 (Regions 3,5) and 11/26 (Regions 3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.11	0.03	0.08	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

\* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 11/14 (Region 3), 11/15 (Region 1&2,3,5), 11/16 (Region 3,5), 11/17 (Region 3), 11/18 (Region 3), 11/20 (Region 3,5), 11/21 (Regions 3), 11/22 (Region 3), and 11/26 (Region 3). These increases are not known to be associated with any outbreaks.

Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.51	0.34	0.31	0.40
Median Rate*	0.20	0.37	0.22	0.26	0.33

\* Per 100,000 Residents

## MARYLAND REPORTABLE DISEASE SURVEILLANCE

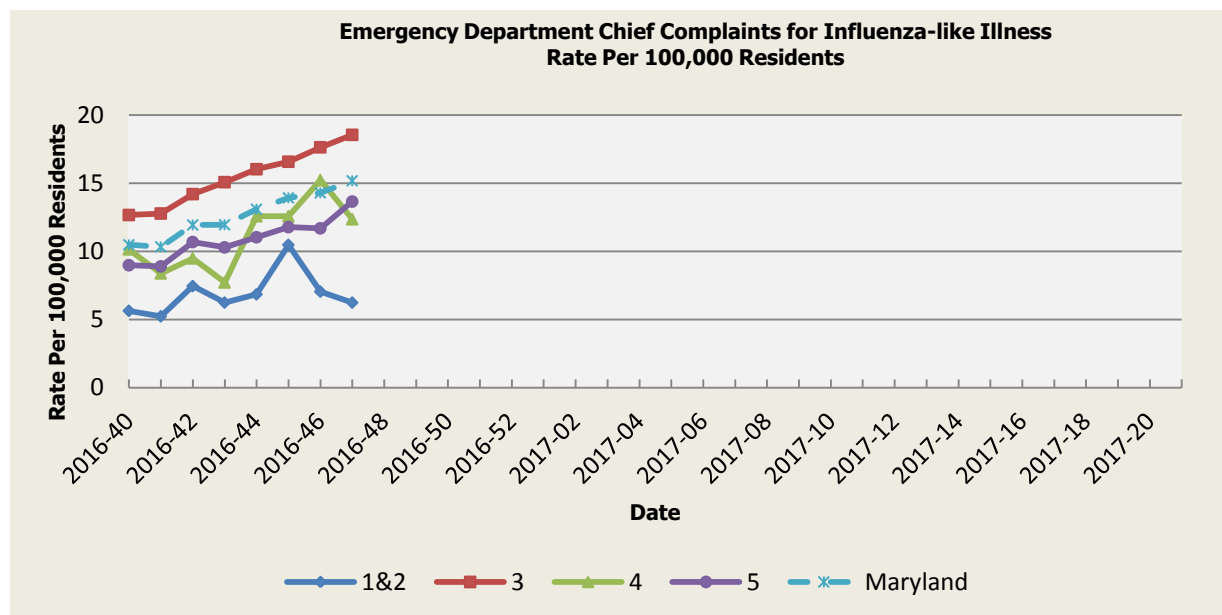
Condition	Counts of Reported Cases†					
	December			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Aseptic meningitis	12	31.8	30	315	430.4	433
Meningococcal disease	0	0	0	3	6.4	5
Measles	0	0.2	0	4	4.6	3
Mumps	2	0.4	0	19	38	14
Rubella	0	0	0	1	2.4	2
Pertussis	16	33.6	31	231	285.4	343
Foodborne Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Salmonellosis	28	47.8	48	745	859.6	867
Shigellosis	5	12.4	10	125	169.4	213
Campylobacteriosis	29	42.2	47	670	643.4	644
Shiga toxin-producing Escherichia coli (STEC)	6	8	7	180	116.6	106
Listeriosis	1	1.2	1	18	16	16
Arboviral Diseases	2016	Mean*	Median*	2016	Mean*	Median*
West Nile Fever	0	0	0	2	11.8	10
Lyme Disease	41	65.6	73	1720	1404.2	1500
Emerging Infectious Diseases	2016	Mean*	Median*	2016	Mean*	Median*
Chikungunya	0	0.8	0	6	16.2	0
Dengue Fever	1	1.4	1	38	16	16
Zika Virus***	3	0	0	124	0.2	0
Other	2016	Mean*	Median*	2016	Mean*	Median*
Legionellosis	7	8.4	7	141	156.8	158

† Counts are subject to change \*Timeframe of 2011-2015 \*\*Includes January through current month

\*\*\* As of December 2, 2016, the total Maryland Confirmed Zika Virus Infections is 110.

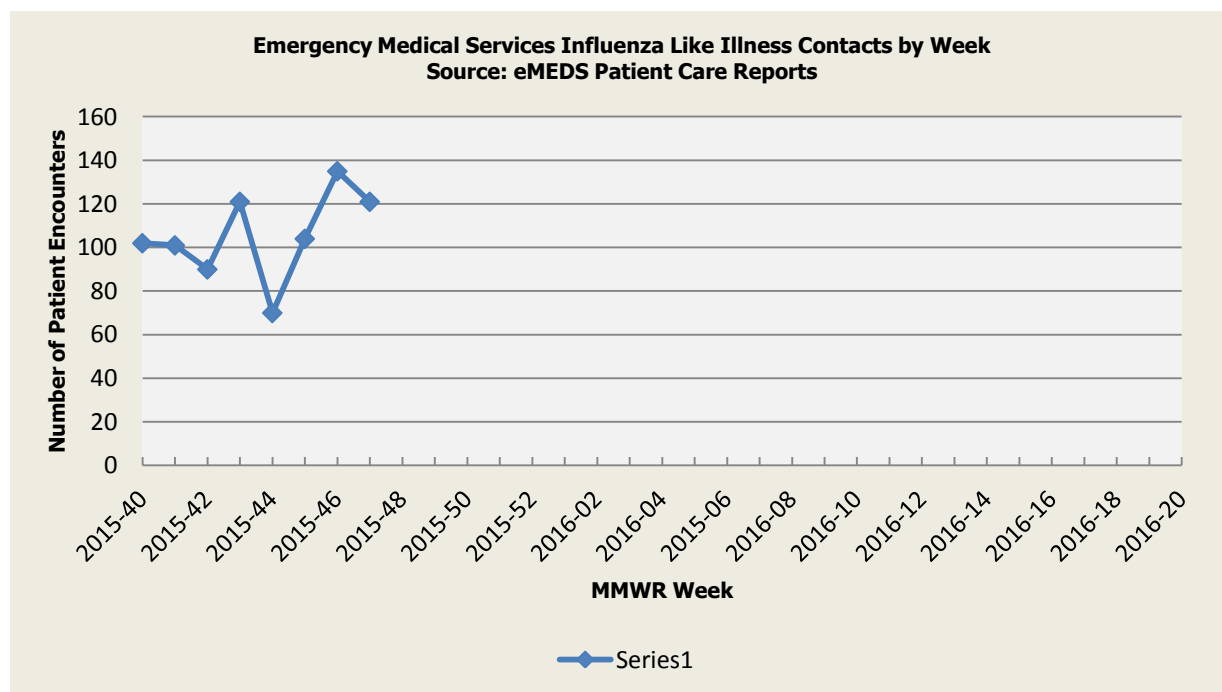
## SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 47 was: Sporadic Geographic Spread with Minimal Intensity.



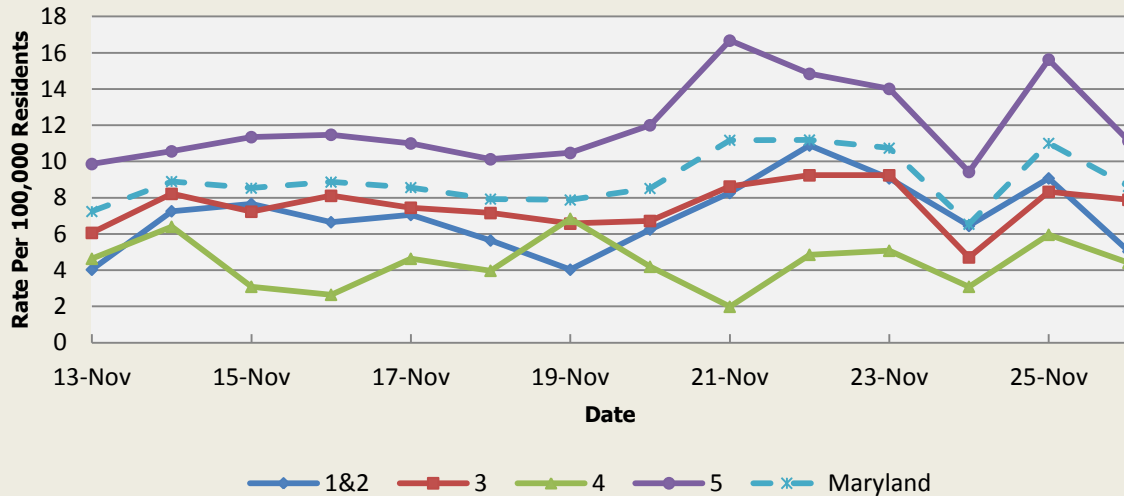
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.26	11.58	10.78	10.43	10.88
Median Rate*	7.66	8.99	9.05	8.03	8.72

\* Per 100,000 Residents



**Disclaimer on eMEDS flu related data:** This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.

### Over-the-Counter Medication Sales Related to Influenza Rate Per 100,000 Residents

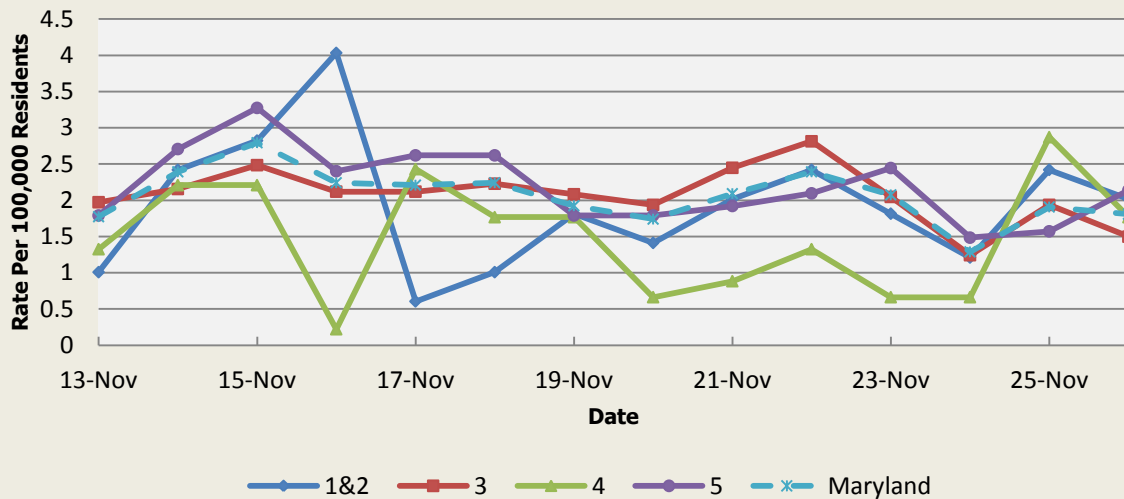


There was an appreciable increase above baseline in the rate of OTC medication sales on 11/14 (Region 4), 11/19 (Region 4), 11/21 (Regions 1&2,4), 11/22 (Regions 1&2), 11/23 (Regions 1&2), and 11/25 (Regions 1&2,4). These increases are not known to be associated with any outbreaks.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.86	4.69	2.60	8.21	5.79
Median Rate*	2.82	3.98	2.21	7.60	5.19

\* Per 100,000 Residents

### Over-the-Counter Thermometer Sales Rate Per 100,000 Residents



There was not an appreciable increase above baseline in the rate of OTC thermometer sales this week.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.48	3.30	2.54	4.50	3.72
Median Rate*	3.23	3.07	2.43	4.10	3.46

\* Per 100,000 Residents



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

**Alert phase:** This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of October 3, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 856, of which 452 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

### **Avian Influenza:**

**HPAI H5N6 (JAPAN):** 29 Nov 2016, Health Officials in Japan report a total of two confirmed outbreaks of highly pathogenic avian influenza, subtype H5. It is suspected that these two (2) new outbreaks may be related to the HPAI H5N6 detections recently reported in Japan although neuraminidase has not been typed. Read More: <http://www.promedmail.org/post/4664105>

**HPAI H5N8 (ROMANIA - EUROPE):** 29 Nov 2016, Health Officials report highly pathogenic avian influenza in Romania, source of outbreak may be connected to HPAI H5N8 confirmed in neighboring areas of Austria, Denmark, Croatia, Germany, Hungary, India, Israel, the Netherlands, Poland, the Russian Federation, Switzerland, Iran (Islamic Republic of), Sweden, Finland, Romania, and France. The European Commission encourages European Union member states to remain vigilant following outbreaks of bird flu in poultry and wild birds across Europe. The announcement comes after several international markets placed import restrictions on German poultry following an outbreak of bird flu in the country reported two weeks ago. Read More: <http://www.promedmail.org/post/4664106>

**HPAI H5N6 (SOUTH KOREA):** 25 Nov 2016, Health Officials in North Korea reported twelve (12) new outbreaks of HPAI H5N6 in addition to the previous two (2) outbreaks reported originally, with circulation occurring in at least six (6) provinces currently. The government issued a 48-hour temporary nationwide "standstill" order over the weekend [26-27 Nov 2016] banning the movement of poultry in an effort to prevent the spread of bird flu. Some 89 000 poultry farms, slaughter houses, fodder plants, and related vehicles registered with the Korea Animal Health Integrated System (KAHIS) were subject to the order. Read More: <http://www.promedmail.org/post/4655089>

### **NATIONAL DISEASE REPORTS**

**GASTROENTERITIS (CALIFORNIA):** 01 Dec 2016, There have been at least 17 people identified who were sickened in the outbreak of a foodborne illness in East Contra Costa County, including three (3) deaths. Evidence mounts that the cause was a church-sponsored Thanksgiving dinner in which much of the food was prepared in homes. Those who fell sick range from teens to their 70s. At this time, known facts of the cases point to *Clostridium perfringens*, a bacterium associated with undercooked meats that are left to sit for long periods of time. Read More: <http://www.promedmail.org/post/4666461>

**SALMONELLOSIS (USA):** 30 Nov 2016, The Centers for Disease Control and Prevention (CDC) is working with Wisconsin Health, Agriculture, and Laboratory Agencies, several other states, and the US Department of Agriculture Animal and Plant Health Inspection Service (USDA-APHIS) to investigate a multistate outbreak of multidrug-resistant *Salmonella* Heidelberg infections. To date, 21 people infected with an outbreak strain of *S.* Heidelberg have been reported from 8 states. Among 19 people about whom information is available, illnesses started on dates ranging from 11 Jan 2016 to 24 Oct 2016. Those ill affected range in age from less than 1 year to 72, with a median age of 21 (62% female); and no deaths have been reported. Read more: <http://www.promedmail.org/post/4663570>

**STREPTOCOCCUS (ALASKA):** 30 Nov 2016, The Alaska section of epidemiology reported an additional death in Fairbanks for an updated total of four (4) deaths due to group A streptococcal infection, instead of 3, as previously reported. A new strain of group A streptococcus [GAS or *Streptococcus pyogenes*] bacteria first identified in Fairbanks [Alaska] in early 2016 has caused an outbreak in Anchorage [Alaska], mainly among the homeless population. At least 28 people in Fairbanks and Anchorage have been hospitalized since the bacteria were identified, and 3 have died due to different invasive diseases. Read more: <http://www.promedmail.org/post/4664201>

**LEGIONELLOSIS (NEW YORK):** 24 Nov 2016, New York State health officials continue to investigate an outbreak of Legionnaires' disease in the Saratoga Springs area, which has expanded to 18 patients, up from 13 early this month. A total of 11 of the patients had either stayed at or visited the Wesley Health Care Center during the period when they would have contracted the disease; two of the patients have died. State investigators have not found a source of legionella bacteria outside of Wesley. The state implemented new regulations for testing and maintaining cooling towers after an outbreak of legionnaires' disease in the Bronx [New York City] last year. The 4 cooling towers on the Wesley campus were in compliance with those new rules, according to the Health Department. Read More: <http://www.promedmail.org/post/4652419>

## **INTERNATIONAL DISEASE REPORTS**

**NON-TUBERCULOUS MYCOBACTERIA (NOVA SCOTIA):** 30 Nov 2016, Health authorities in Nova Scotia are reporting a link between a device used to heat and cool blood during cardiac surgeries to a bacterial infection caused by *non-tuberculous mycobacteria* (NTM). More than 4000 Atlantic Canadians who underwent heart surgery at two (2) Halifax [Nova Scotia] hospitals are being warned they may have been exposed to these rare bacteria from contaminated medical equipment. It's possible the equipment was exposed to the bacteria during manufacturing, the Nova Scotia Health Authority and the IWK Health Centre said in a joint news release. The CDC alerted doctors and hospitals to the same issue in mid-October [2016] after American officials linked the contamination to at least 28 cases, including 4 deaths. Read More: <http://www.promedmail.org/post/4664202>

**TRYPANOSOMIASIS (BRAZIL):** 24 Nov 2016, Health officials in Pará state in northern Brazil are concerned about the number of Chagas disease cases seen this year [2016] as 2 fatalities were reported recently in the city of Barcarena. Between January and September 2016, 127 cases of the disease were registered in Pará. The State Department of Public Health attributes much of the Chagas to the consumption of açai palm contaminated by the vector of the parasite, the kissing bug. The municipalities with the most cases were Breves (45 cases), Igarapé-Miri (14 cases), Abaetetuba cases (12 cases), and Belém (9 cases). Read More: <http://www.promedmail.org/post/4651500>

**STREPTOCOCCUS (ENGLAND):** 16 Nov 2016, Health Officials from the South West region of England report that the number of scarlet fever cases across the region has increased by more than 50 per cent in the last week: a total of 20 cases, up from 13 in the previous week, and an overall 50 year high in the UK. In Somerset county, three (3) people have been diagnosed with scarlet fever in the past week: 1 in South Somerset and 2 in the Sedgemoor district. Read More: <http://www.promedmail.org/post/4634640>

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at [www.facebook.com/MarylandOPR](http://www.facebook.com/MarylandOPR).

More data and information on influenza can be found on the DHMM website:  
<http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

### **Prepared By:**

Office of Preparedness and Response  
Maryland Department of Health & Mental Hygiene  
300 W. Preston Street, Suite 202  
Baltimore, MD 21201  
Fax: 410-333-5000

Anikah H. Salim, MPH, CPH  
Biosurveillance Epidemiologist  
Office: 410-767-2074  
Email: [Anikah.Salim@maryland.gov](mailto:Anikah.Salim@maryland.gov)

Jessica Goodell, MPH  
Temporary Epidemiology Field Assignee, CDC  
Office: 410-767-6745  
Email: [Jessica.Goodell@maryland.gov](mailto:Jessica.Goodell@maryland.gov)

## Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

## Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

